AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

Claims 1 to 22 (Canceled)

23. (New) A device for adjusting the chromatic dispersion in an optical transmission system, the device comprising

an optical element having a temperature-dependent chromatic dispersion, the optical element disposed along an optical transmission path within a receiver;

a device for measuring an ambient temperature of at least one section of the optical element to generate a measured value; and

a device for adjusting at least one of a temperature and a temperature distribution of at least one region of the optical element for providing a predefined chromatic dispersion of the optical element, the device adjusting in response to the measured value.

24. (New) The device of claim 23, wherein the optical element includes a material that exhibits an essentially monotonic dependence of the chromatic dispersion upon its temperature.

25. (New) The device of claim 23, wherein the optical element includes a material which exhibits a dispersion coefficient that has an inverted sign compared to the dispersion coefficient of the optical transmission system.

26. (New) The device of claim 23, wherein the optical element includes an optical fiber and the optical fiber is a glass fiber.

27. (New) The device of claim 23, wherein the device for adjusting at least one of the temperature and the temperature distribution includes a temperature-control device.

28. (New) The device of claim 27, wherein the temperature-control device includes a thermostat device.

29. (New) The device of claim 23, further comprising:

a chromatic dispersion monitor operative to measure chromatic dispersion.

30. (New) The device of claim 23, further comprising:

at least two optical elements having a temperature-dependent chromatic dispersion, which are assigned to separate inputs and outputs; and

the device for adjusting at least one of a temperature or a temperature distribution operative to adjust a joint temperature or temperature distribution of at least one region of the at least two optical elements.

31. (New) An optical transmission system comprising:

a transmitter for transmitting an optical signal;

a receiver for receiving the optical signal from the transmitter, the transmitter coupled to the receiver via an optical element defining an optical path, wherein the optical element includes a temperature-dependent chromatic dispersion; and

at least one device, disposed within the receiver, for adjusting the chromatic dispersion of the optical element, the device including:

a device for measuring an ambient temperature of at least one section of the optical element to generate a measured value; and

a device for adjusting at least one of a temperature and a temperature distribution of at least one region of the optical element for providing a predefined chromatic dispersion of the optical element, the device adjusting in response to the measured value.

32. (New) The system of claim 31, wherein the transmitter includes:

a device for feeding a test signal for measuring the chromatic dispersion.

33. (New) The system of claim 31, wherein the receiver includes:

at least one device for measuring the chromatic dispersion.

34. (New) The system of claim 31, the receiver further including:

a temperature control device.

35. (New) The system of claim 31, wherein the temperature-control device regulates the temperature as a function of a signal that corresponds to the measured value of the chromatic dispersion.

36. (New) The system of claim 31, further comprising:

at least two devices for adjusting the chromatic dispersion of the optical transmission system that are disposed one after the other along the optical path being interconnected via an optical monitoring channel.

37. (New) The system of claim 31 further comprising:

at least two devices for adjusting the chromatic dispersion of the optical transmission system that are disposed one after the other along the optical path being connected via an optical monitoring channel to a computer device for ascertaining the settings of the device.

38. (New) A method for adjusting the chromatic dispersion in an optical transmission system, the method comprising:

measuring an ambient temperature of at least one section of the optical element having a temperature-dependent chromatic dispersion, the optical element disposed along an optical transmission path within a receiver;

generating a measured value based on the measured ambient temperature; and

adjusting, in response to the measured value, at least one of a temperature and a temperature distribution of at least one region of the optical element for providing a predefined chromatic dispersion of the optical element.

39. (New) The method of claim 38 wherein the chromatic dispersion in the optical transmission system is measured and at least one of the temperature and the temperature distribution is adjusted as a function of the measurement.

40. (New) The method of claim 38 wherein the chromatic dispersion in the optical transmission system is ascertained by measuring the temperature at at least one location in the optical transmission system.

41. (New) The method of claim 38 wherein the step of adjusting further comprises:

compensating for the chromatic dispersion in the optical transmission system.

42. (New) The method of claim 39 wherein the adjusting the at least one of a temperature and a temperature distribution of the optical element is as a function of the adjustment of at least one further element having a temperature-dependent chromatic dispersion in the optical transmission system.

43. (New) The method of claim 38, further comprising ascertaining the chromatic dispersion of the at least one section of the optical transmission system by feeding and evaluating a test signal.

44. (New) The method of claim 43,further comprising measuring a differential phase shift of a wavelength-modulated test signal for determining the chromatic dispersion.